IN THE CLAIMS:

Please CANCEL claims 22, 25 and 26 without prejudice to or disclaimer of the recited subject matter.

Please AMEND claim 17, as follows. For the Examiner's convenience, all claims currently pending have been reproduced below.

1-16. (Canceled)

17. (Currently Amended) A positioning apparatus comprising:

a movable member;

a first pair of electromagnets configured to sandwich said movable member and each to generate suction power having an inverse direction between said movable member and each electromagnet of said first pair of electromagnets; ~~and~~

a second pair of electromagnets configured to sandwich said movable member and each to generate suction power having an inverse direction between said movable member and each electromagnet of said second pair of electromagnets; and

a third pair of electromagnets configured to sandwich said movable member and each to generate suction power having an inverse direction between said movable member and each electromagnet of said third pair of electromagnets,

wherein said first and second pair of electromagnets are controlled to generate a driving force in a same direction in order to drive said movable member, ~~and~~

said first pair of electromagnets is controlled to reduce generation of a leakage flux from said second pair of electromagnets, and

said third pair of electromagnets are controlled to cancel generation of a leakage flux from said first pair of electromagnets and said second pair of electromagnets.

18. (Previously Presented) A positioning apparatus according to claim 17, wherein each of said first pair of electromagnets and said second pair of electromagnets are controlled to generate a magnetic flux having an inverted polarity with respect to the other.

19. (Previously Presented) A positioning apparatus according to claim 17, wherein said movable member includes an iron core.

20. (Previously Presented) A positioning apparatus according to claim 17, wherein said movable member includes a core configured with a magnetic material, which forms magnetic paths respectively between said first and second pairs of electromagnets and the core.

21. (Previously Presented) A positioning apparatus according to claim 17, wherein currents of inverse directions having substantially a same amount are applied to said first and second pair of electromagnets.

22. (Canceled)

23. (Previously Presented) A positioning apparatus according to claim 17, wherein said first pair of electromagnets and said second pair of electromagnets comprise a coil and a core, wherein the coil is wound around the core.

24. (Previously Presented) A positioning apparatus according to claim 17, further comprising a stage configured to be fixed with said movable member and to mount an object to be positioned, wherein said stage is driven in X-axis, Y-axis and Z-axis directions, and a rotational direction around respective axes.

25. (Canceled)

26. (Canceled)